

have assured me that they have 'often picked the periwinkle, the same as the English one,' on the shores contiguous to Halifax when they were only school-boys."

The only other evidence that has been found to show that the shell was known in Nova Scotia, previous to 1857, comes in a private letter to the writer from Mr. E. Gilpin, of Halifax. He says: "Historical evidence in the shape of old English settlers shows it to have been known in the province as far back as 1800."

How much reliance can be placed upon the unscientific evidence of old settlers is a question; but granting that they did not confound it with the native form, and that they actually saw it previous to 1857, nothing more is proved than that the shell existed in Nova Scotia some years before Willis found it. Similarly it may be said of the fact that Dr. Dawson "collected it more than thirty years ago in the Gulf of St. Lawrence," that it proves (if granted) only that the shell was to be found there earlier than any published record shows. Or it may be that, if introduced, it was introduced at more than one point.

It is somewhat remarkable, however, that, as will be shown farther on, no other collector found this conspicuous shell in the gulf until after 1870, although Dr. Dawson must have found it at least as early as 1844. We know that it increases with great rapidity wherever introduced. Why then, if it existed there, did it not increase sufficiently to enable some other collector to find it? None of the lists of Bell, Whiteaves or Dr. Dawson himself mention it until after 1870. It is to be regretted that we have not some record of Dr. Dawson's discovery of the shell so far back, besides the note by Professor Verrill who doubtless writes from memory.

If this shell be indigenous to our shores, it must have been confined, previous to say 1850, exclusively to the Nova Scotia coast. That this must be so is shown as well by other facts as by the many lists we have of New England and Gulf of St. Lawrence shells, all of which mention the native periwinkles, *L. palliata*, *L. rudis*,¹ *L. tenebrosa*,¹ while *L. litorea* never appears. That the latter could have been present but "overlooked by collectors" is altogether out of the question. It is a much larger and more conspicuous shell than the native forms, has the same habitats, and wherever it occurs at all occurs abundantly.

¹ For convenience we will consider these two to be distinct species, although they are probably varieties of the same species.